DENR USE ONLY: ☐Paper Report ☐Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Consultant - CDM Smith Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Mathew F. Colone Phone: 919-787-5620

E-mail: colonemf@cdmsmith.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Buncombe County Subtitle D Landfill	87 Panther Branch Road Alexander, North Carolina	1107	.1600	July 29, 2014

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☐ Detection Monitoring ☒ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☐ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify)
☐ Other(specify)

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Mathew F. Colone | Consultant | (919) 787-5620

Facility Representative Name (Print) | Title | (Area Code) Telephone Number

Mathew F. Colone 9/9/2014

Signature | Date

Affix NC Licensed Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1851 GEOLOGIST MATHEW F. COLONE

9/9/2014

5400 Glenwood Ave, Suite 400, Raleigh, NC 27612

Facility Representative Address

F-0412

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

5400 Glenwood Avenue, Suite 400
Raleigh, North Carolina 27612
tel: 919 325-3500
fax: 919 781-5730

September 9, 2014

Ms. Jaclynne Drummond
North Carolina Department of Environment and
Natural Resources
Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Subject: MW-3R Installation and Initial Sampling Report
Buncombe County Subtitle D Landfill
Permit # 11-07

Dear Ms. Drummond:

The purpose of this letter is to notify the Solid Waste Section (SWS) that monitoring well MW-3R has been installed downgradient of existing monitoring well MW-3 at the Buncombe County Subtitle D Landfill. Following installation, initial water quality samples were collected from the new well.

Previous semi-annual groundwater sampling events at the landfill indicated that results from MW-3 above the North Carolina 2L Groundwater Standard (NC2L) for vinyl chloride. Subsequent assessment monitoring confirmed the presence of vinyl chloride and methane gas within MW-3. Methane gas was also detected in MW-7. In April 2013, a landfill gas delineation study was implemented which included 14 borings and 3 temporary landfill gas (LFG) monitoring wells. Assessment monitoring indicated that LFG was still migrating from the landfill and vinyl chloride, along with benzene, was still present in MW-3 above the NC2L Groundwater Standard.

In order to address compliance issues with MW-3 due to benzene and vinyl chloride exceedences, Buncombe County requested relocation of the well. In a letter dated June 16, 2014, the SWS approved the request by the County to relocate monitoring well MW-3 at an increased distance from the edge of waste.

Well Installation and Sampling

Reuben Caldwell Drilling, Inc. installed well MW-3R on July 28, 2014 under supervision of a CDM Smith geologist. The well was installed with a truck-mounted rig utilizing air rotary drilling methods. Per the SWS request, existing well MW-3 was not abandoned.

The well is constructed of 2-inch schedule 40 PVC and 15-feet of 0.010-inch slotted screen. A well construction summary table for the new well along with construction information for the existing wells at the landfill is presented on **Table 1**. Well construction diagrams and the driller's well construction records (Form GW-1b) are attached. Following installation, the well was developed and completed with

a locking, above-grade, protective cover and 3-feet diameter by 6-inch concrete pad. The new well was surveyed to State Plane Coordinates by a North Carolina registered surveyor. Well location is provided on **Figure 1**.

Sampling Methodology

Groundwater samples were collected from the well on July 29, 2014 and submitted to Pace Analytical, Inc. in Asheville, North Carolina for analysis of the North Carolina Appendix I VOC's by EPA Method 8260, and Appendix I metals by EPA Method 6010. A copy of the lab data is attached. Copies of the data in the Solid Waste Section Electronic Data Deliverable format along with a signed Environmental Monitoring Report form will be forwarded to the Compliance Unit as well.

During sampling, the well was purged dry and allowed to recover prior to sampling. Field parameters including pH, conductivity, temperature, turbidity, dissolved oxygen, and oxidation/reduction potential were measured and recorded prior at the time of sample collection. Field parameters measured at sample collection time are provided on **Table 2**.

Sampling Results

All VOCs in well MW-3R were below detection limits. MW-3R had several metals detections including: Antimony, barium, chromium, cobalt, copper, nickel, and vanadium. All of the metals detected were reported as "J" values with the exception of barium and vanadium. The detections of antimony, cobalt, and vanadium exceeded their respective Groundwater Protection Standards. The detected metals and concentrations are similar to historic background concentrations at the site and are likely naturally occurring. A summary of the initial sampling results for MW-3R is provided on **Table 3**. Copies of the July 29, 2014 laboratory data are attached.

MW-3R will continue to be monitored as part of Water Quality Monitoring Network for the site. Because no Appendix I VOC was detected in the initial samples, the County requests that only Appendix I parameters be analyzed for future semi-annual monitoring events at MW-3R. If you have any questions or need additional information, please call me at (919) 325-3569 or email to colonemf@cdmsmith.com.

Very truly yours,

Mathew F. Colone, P.G.
CDM Smith, Inc.

cc: Jon Creighton, Buncombe County
David Brigman, Buncombe County
Kristy Smith, Buncombe County
Chris Gabel, CDM Smith

Table 1
Monitoring Well Construction Summary
Buncombe County Subtitle D Landfill
MW-3R Installation and Initial Sampling Report

Piezometer I.D.	Construction Date	Top of Casing Elevation (feet AMSL)	Ground Elevation (feet AMSL)	Screen Interval Lithology	Drilling Method	Depths (feet bls)				Borehole Diameter (inches)	Casing Diameter (inches)	Elevation (feet AMSL)	
						Borehole Depth	Screen Interval	Top of Sand Filter	Top of Bentonite Seal			Top of Screen Interval	Bottom of Screen Interval
Subtitle D Landfill Monitoring Wells													
MW-1	1990'S	2021.22	2019.28	Saprolite/PWR	Air	76	61-76	59	57	8	2	1958.28	1943.28
MW-1d	1990'S	2021.57	2019.97	Bedrock	Air	200	85-95	81	78	8	2	1934.97	1924.97
MW-2	1990'S	1920.86	1918.54	Saprolite/PWR	Air	20	5-20	3	1	8	2	1913.54	1898.54
MW-2d	1990'S	1920.51	1918.63	Bedrock	Air	55	45-55	42	39	8	2	1873.63	1863.63
MW-3	1990'S	1987.66	1985.48	Saprolite/PWR	Air	38	23-38	21	18.5	8	2	1962.48	1947.48
MW-3R	**7/28/2014**	**1973.18**	**1970.67**	**PWR**	**Air**	**55**	**40-55**	**38**	**35**	**8**	**2**	**1930.67**	**1915.67**
MW-4	1990'S	1944.35	1942.48	Saprolite/PWR	Air	25	9-24	7	5	8	2	1933.48	1918.48
MW-4d	1990'S	1944.64	1942.79	Bedrock	Air	55	45-55	43	40	8	2	1897.79	1887.79
MW-5	1990'S	1977.12	1975.39	Saprolite/PWR	Air	50	35-50	33	31	8	2	1940.39	1925.39
MW-5d	1990'S	1976.92	1975.31	Bedrock	Air	81	71-81	68.5	66.5	8	2	1904.31	1894.31
MW-6	1990'S	1987.34	1985.39	Saprolite/PWR	Air	50	35-50	27	24.5	8	2	1950.39	1935.39
MW-7	1990'S	2022.83	2020.72	Saprolite/PWR	Air	61	42-57	40	38	8	2	1978.72	1963.72
MW-8	1990'S	1962.06	1959.85	Saprolite/PWR	Air	70	55-70	53	51	8	2	1904.85	1889.85
MW-8d	1990'S	1962.47	1960.57	Bedrock	Air	95	85-95	82.5	79	8	2	1875.57	1865.57
MW-10	3/6/2002	2010.54	2007.5	Saprolite/PWR	Air	73	58-73	56	54	6	2	1949.50	1934.50
MW-10d	3/6/2002	2010.56	2007.5	Bedrock	Air	117	102-117	100	98	6	2	1905.50	1890.50
MW-11	3/5/2002	1966.71	1963.7	Bedrock	Air	50	35-50	33	31	6	2	1928.70	1913.70
MW-11d	3/5/2002	1966.15	1963.2	Bedrock	Air	70	60-70	58	56	6	2	1903.20	1893.20
MW-13	6/24/2012	1953.92	1951.3	Bedrock	Air	16	6-16	4	2	6	2	1945.30	1935.30
MW-13d	6/23/2005	1953.82	1951.4	Bedrock	Air	44	39-44	37	35	6	2	1912.40	1907.40
MW-13	6/24/2012	1953.92	1951.3	Bedrock	Air	16	6-16	4	2	6	2	1945.30	1935.30
MW-13d	6/23/2005	1953.82	1951.4	Bedrock	Air	44	39-44	37	35	6	2	1912.40	1907.40
C&D Landfill Monitoring Wells													
MW-9	*1990'S*	*1966.54*	*1963.70*	*Bedrock*	*HSA/Core*	*26*	*11-26*	*8*	*6*	*6*	*2*	*1952.70*	*1937.70*
MW-9d	*1990'S*	*1966.34*	*1963.70*	*Bedrock*	*HSA/Core*	*40*	*35-40*	*32*	*29*	*6*	*2*	*1928.70*	*1923.70*
MW-12	6/25/2002	1947.39	1944.7	Saprolite/PWR/ Bedrock	Air	17	7-17	5	3	6	2	1937.70	1927.70
MW-12d	6/25/2002	1947.1	1944.3	Bedrock	Air	37	27-37	25	23	6	2	1917.30	1907.30
MW-14	4/5/2006	1952.77	1949.8	Bedrock	Air	49	39-49	36	33	6	2	1910.80	1900.80
MW-14d	4/6/2006	1953.76	1950.7	Bedrock	Air	88	78-88	74	71	6	2	1872.70	1862.70
MW-15	6/27/2012	1973.29	1970.21	Saprolite/PWR	Air	26	16-26	14	12	6	2	1954.21	1944.21
MW-15d	6/27/2012	1973.51	1970.25	Bedrock	Air	43	33-43	31	27	6	2	1937.25	1927.25

Proposed Monitoring Wells				
Nest	Well	Drilling Method	Screen Interval Depth (feet) **	Rationale
MW-16	MW-16	HSA	*10-20*	Downgradient of Cell 7 sump within drainage feature; screened in saprolite or PWR or PWR/bedrock contact
	MW-16d	Air Rotary	*30-45*	Downgradient of Cell 7 sump within drainage feature; screened interval at PWR/bedrock contact or first conductive bedrock fracture

Notes:

** - screen intervals represent anticipated depths.

1. AMSL - Above Mean Sea Level
2. PWR - Partially Weathered Rock
3. bls - Below Land Surface
4. HSA - Hollow-Stem Auger
5. Bold - Piezometers installed during the Cell 7 design hydrogeologic investigation.
6. Italic - Abandoned piezometers/monitoring wells
7. Monitoring wells MW-9/9d were abandoned to accomodate the Phase I and II C&D Landfill expansions.
8. (cd) - C&D Landfill monitoring wells
9. Horizontal Control - NAD 83
10. Vertical Control - NAVD 29 and 88

Table 2
Groundwater Sampling Field Parameters
Buncombe County Subtitle D Landfill
MW-3R Installation and Initial Sampling Report

						Final Field Parameters					
Well #	TOC Elevation	Ground Elevation	Sample Date	Depth to Water (ft btoc)	Groundwater Elevation	pH	Temperature (C)	Conductivity (us/cm)	D.O. (mg/l)	Turbidity	ORP (mv)
MW-3R	1973.18	1970.67	7/29/2014	56.1	1917.08	5.63	14.22	166	2.54	53	151

All field parameters were measured using a YSI 556 multiparameter probe.

NM - Not Measured

Table 3
Groundwater Sampling Detected Metals Summary
Buncombe County Subtitle D Landfill
MW-3R Installation and Initial Sampling Report

Facility Permit Number	Monitoring Well Code	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
North Carolina 2L or Groundwater Protection Standard			1*	10	700	4*	2	10	1*	1,000	15	100	20	20	0.2*	0.3*	1,000
Solid Waste Section Limit			6	10	100	1	1	10	10	10	10	50	10	10	5.5	25	10
11-07	MW-3R	29-Jul-14	2.7J	<2.7	116	<0.5	<0.5	3.3J	3.2J	2.7J	<4.0	4.6J	<5.0	<2.5	<5.0	6.8J	<5.0

Notes:

1. All units are in micrograms per liter (parts per billion).
2. * - Groundwater Protection Standard
3. NE - Standard Not Established; dup - Duplicate Sample
4. J - Indicates the analytical result is an estimated concentration between the method detection limit and the Solid Waste Section Reporting Limit.

- Concentration exceeds the North Carolina 2L or Groundwater Protection Standard
- Indicates the result is below the detection limit or not analyzed

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: A. WEISPFENNING
DRAWN BY: A. WEISPFENNING
SHEET CHK'D BY: M. COLONE
CROSS CHK'D BY:
APPROVED BY: M. COLONE
DATE: AUGUST 2014

CDM Smith
5400 Glenwood Ave, Suite 300
Raleigh, NC 27612
Tel: (919) 787-5620
North Carolina State License Number: F-1255

BUNCOMBE COUNTY
NORTH CAROLINA

BUNCOMBE COUNTY SOLID WASTE MANAGEMENT FACILITY

GROUNDWATER AND METHANE MONITORING WELL LOCATIONS

PROJECT NO. 6447-105257
FILE NAME: SITEMAP2014.DWG
SHEET NO. 1

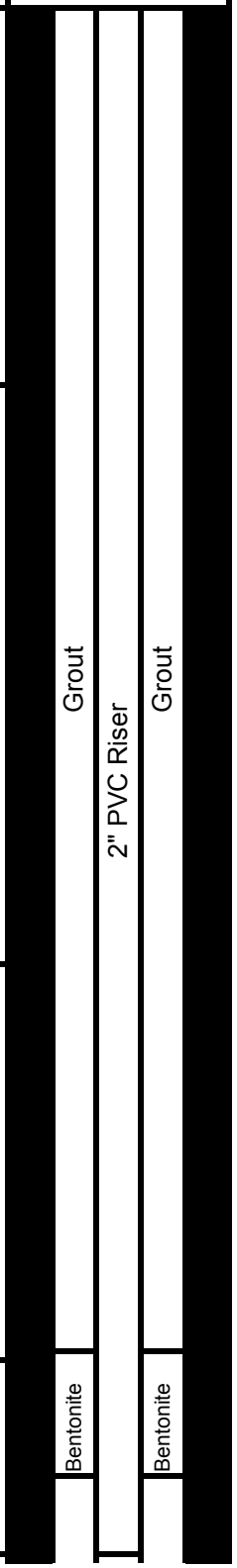
MW-3R Borelog and Well Construction Record

GEOLOGIC LOG

Project:	Monitoring Well Replacement	Driller:	Caldwell Drilling
Logged By:	Mat Colone	Start Date:	7/28/2014
Boring ID:	MW-3R	End Date:	7/28/2014
Method:	Air Rotary and Hammer	Well Diameter:	2 in.
Location:	Subtitle D Landfill	Total Depth:	55 ft

Depth (ft)	Sample Descriptions
1–10	**Silty Sand, dark brown.**
11–25	**Silty Sand, dark brown and gray.**
26–35	**Sand, some silt, light gray. Soft drilling.**
36–40	**Sand, some silt, light gray. Hard drilling. Boulder**

Well Construction Diagram

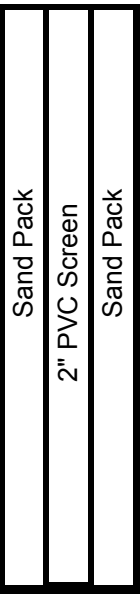


GEOLOGIC LOG

Project:	Monitoring Well Replacement	Driller:	Caldwell Drilling
Logged By:	Mat Colone	Start Date:	7/28/2014
Boring ID:	MW-3R	End Date:	7/28/2014
Method:	Air Rotary and Hammer	Well Diameter:	2 in.
Location:	Subtitle D Landfill	Total Depth:	55 ft

Well Construction Diagram

Depth (ft)	**Sample Descriptions**
41	**Sand, some silt, gray/brown, damp. Partially weathered rock.**
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	**Bedrock, very fractured.**
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	



WELL CONSTRUCTION RECORD

This form can be used for single or multiple wells

1. Well Contractor Information:

Billy Nash
Well Contractor Name

3771-A
NC Well Contractor Certification Number

Reuben Caldwell Drilling, Inc.
Company Name

2. Well Construction Permit #: _____
List all applicable well permits (i.e. County, State, Variance, Injection, etc.)

3. Well Use (check well use):

Water Supply Well:
- ☐ Agricultural
- ☐ Municipal/Public
- ☐ Geothermal (Heating/Cooling Supply)
- ☐ Residential Water Supply (single)
- ☐ Industrial/Commercial
- ☐ Residential Water Supply (shared)
- ☐ Irrigation

Non-Water Supply Well:
- ☑ Monitoring
- ☐ Recovery

Injection Well:
- ☐ Aquifer Recharge
- ☐ Groundwater Remediation
- ☐ Aquifer Storage and Recovery
- ☐ Salinity Barrier
- ☐ Aquifer Test
- ☐ Stormwater Drainage
- ☐ Experimental Technology
- ☐ Subsidence Control
- ☐ Geothermal (Closed Loop)
- ☐ Tracer
- ☐ Geothermal (Heating/Cooling Return)
- ☐ Other (explain under #21 Remarks)

4. Date Well(s) Completed: July 28, 2014 **Well ID#** MW-3R

5a. Well Location:

Buncombe County — Facility/Owner Name
1107-MSWLF-1996 — Facility ID# (if applicable)

85 Panther Branch Road; Alexander, NC
Physical Address, City, and Zip

Buncombe — County
Parcel Identification No. (PIN)

5b. Latitude and Longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

_____ N _____ W

6. Is (are) the well(s): ☑ Permanent or ☐ Temporary

7. Is this a repair to an existing well: ☐ Yes or ☑ No
If this is a repair, fill out known well construction information and explain the nature of the repair under #21 remarks section or on the back of this form.

8. Number of wells constructed: 1
For multiple injection or non-water supply wells ONLY with the same construction, you can submit one form.

9. Total well depth below land surface: 55 (ft.)
For multiple wells list all depths if different (example- 3@200' and 2@100')

10. Static water level below top of casing: 55 (ft.)
If water level is above casing, use "+"

11. Borehole diameter: 6 (in.)

12. Well construction method: Air Rotary
(i.e. auger, rotary, cable, direct push, etc.)

FOR WATER SUPPLY WELLS ONLY:

13a. Yield (gpm) _____ **Method of test:** _____

13b. Disinfection type: _____ **Amount:** _____

For Internal Use ONLY:

14. WATER ZONES

FROM	TO	DESCRIPTION
53 ft.	55 ft.	Water Table
ft.	ft.	

15. OUTER CASING (for multi-cased wells) OR LINER (if applicable)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
ft.	ft.	in.		

16. INNER CASING OR TUBING (geothermal closed-loop)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
ft.	ft.	in.		
ft.	ft.	in.		

17. SCREEN

FROM	TO	DIAMETER	SLOT SIZE	THICKNESS	MATERIAL
40 ft.	55 ft.	2 in.	0.010	Sch 40	PVC
ft.	ft.	in.			

18. GROUT

FROM	TO	MATERIAL	EMPLACEMENT METHOD & AMOUNT
0 ft.	35 ft.	Portland/Bent	Pour
ft.	ft.		
ft.	ft.		

19. SAND/GRAVEL PACK (if applicable)

FROM	TO	MATERIAL	EMPLACEMENT METHOD
38 ft.	55 ft.	#2 Silica Sand	pour
ft.	ft.		

20. DRILLING LOG (attach additional sheets if necessary)

FROM	TO	DESCRIPTION (color, hardness, soil/rock type, grain size, etc.)
0 ft.	10 ft.	dark brown silty sand
10 ft.	25 ft.	dark brown and dark gray silty sand
25 ft.	35 ft.	gray silty sand
35 ft.	40 ft.	boulder
40 ft.	53 ft.	gray/brown silty sand - PWR
53 ft.	55 ft.	bedrock
ft.	ft.	

21. REMARKS

22. Certification:

Billie Nash — Signature of Certified Well Contractor
7/30/14 — Date

By signing this form, I hereby certify that the well(s) was (were) constructed in accordance with 15A NCAC 02C .0100 or 15A NCAC 02C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

23. Site diagram or additional well details:
You may use the back of this page to provide additional well site details or well construction details. You may also attach additional pages if necessary.

SUBMITTAL INSTUCTIONS

24a. For All Wells: Submit this form within 30 days of completion of well construction to the following:

Division of Water Resources, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

24b. For Injection Wells ONLY: In addition to sending the form to the address in 24a above, also submit a copy of this form within 30 days of completion of well construction to the following:

Division of Water Resources, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

24c. For Water Supply & Injection Wells:
Also submit one copy of this form within 30 days of completion of well construction to the county health department of the county where constructed.

MW-3R Laboratory Report

July 29, 2014 Sampling Event

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

August 25, 2014

Mr. Dan Forbes
CDM
5400 Glenwood Ave Suite 300
Raleigh, NC 27612

RE: Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Dear Mr. Forbes:
Enclosed are the analytical results for sample(s) received by the laboratory on July 29, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

Revised Report: Report was revised to report results down to MDL

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chris Derouen
christopher.derouen@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

CERTIFICATIONS

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs
2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

SAMPLE SUMMARY

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92211157001	**MW-3R**	Water	07/29/14 10:00	07/29/14 11:30
92211157002	**TRIP BLANK**	Water	07/29/14 00:00	07/29/14 11:30

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

SAMPLE ANALYTE COUNT

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92211157001	**MW-3R**	EPA 6010	JMW	15	PASI-A
		EPA 8260	GAW	63	PASI-C
92211157002	**TRIP BLANK**	EPA 8260	GAW	63	PASI-C
		EPA 8260	GAW	71	PASI-C

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Sample: MW-3R **Lab ID: 92211157001** Collected: 07/29/14 10:00 Received: 07/29/14 11:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	**2.7J**	ug/L	5.0	2.6	1	07/30/14 15:25	07/31/14 03:52	7440-36-0	
Arsenic	**<2.7**	ug/L	10.0	2.7	1	07/30/14 15:25	07/31/14 03:52	7440-38-2	
Barium	**116**	ug/L	5.0	2.5	1	07/30/14 15:25	07/31/14 03:52	7440-39-3	
Beryllium	**<0.50**	ug/L	1.0	0.50	1	07/30/14 15:25	07/31/14 03:52	7440-41-7	
Cadmium	**<0.50**	ug/L	1.0	0.50	1	07/30/14 15:25	07/31/14 03:52	7440-43-9	
Chromium	**3.3J**	ug/L	5.0	2.0	1	07/30/14 15:25	07/31/14 03:52	7440-47-3	
Cobalt	**3.2J**	ug/L	5.0	2.0	1	07/30/14 15:25	07/31/14 03:52	7440-48-4	
Copper	**2.7J**	ug/L	5.0	2.0	1	07/30/14 15:25	07/31/14 03:52	7440-50-8	
Lead	**<4.0**	ug/L	5.0	4.0	1	07/30/14 15:25	07/31/14 03:52	7439-92-1	
Nickel	**4.6J**	ug/L	5.0	2.5	1	07/30/14 15:25	07/31/14 03:52	7440-02-0	
Selenium	**<5.0**	ug/L	10.0	5.0	1	07/30/14 15:25	07/31/14 03:52	7782-49-2	
Silver	**<2.5**	ug/L	5.0	2.5	1	07/30/14 15:25	07/31/14 03:52	7440-22-4	
Thallium	**<5.0**	ug/L	10.0	5.0	1	07/30/14 15:25	07/31/14 03:52	7440-28-0	
Vanadium	**6.8**	ug/L	5.0	2.5	1	07/30/14 15:25	07/31/14 03:52	7440-62-2	
Zinc	**<5.0**	ug/L	10.0	5.0	1	07/30/14 15:25	07/31/14 03:52	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		08/07/14 00:59	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		08/07/14 00:59	71-43-2	
Bromobenzene	**<0.30**	ug/L	1.0	0.30	1		08/07/14 00:59	108-86-1	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		08/07/14 00:59	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		08/07/14 00:59	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		08/07/14 00:59	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		08/07/14 00:59	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		08/07/14 00:59	78-93-3	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		08/07/14 00:59	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		08/07/14 00:59	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		08/07/14 00:59	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		08/07/14 00:59	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		08/07/14 00:59	74-87-3	
2-Chlorotoluene	**<0.35**	ug/L	1.0	0.35	1		08/07/14 00:59	95-49-8	
4-Chlorotoluene	**<0.31**	ug/L	1.0	0.31	1		08/07/14 00:59	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	2.0	1		08/07/14 00:59	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		08/07/14 00:59	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		08/07/14 00:59	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		08/07/14 00:59	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		08/07/14 00:59	95-50-1	
1,3-Dichlorobenzene	**<0.24**	ug/L	1.0	0.24	1		08/07/14 00:59	541-73-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/07/14 00:59	106-46-7	
Dichlorodifluoromethane	**<0.21**	ug/L	1.0	0.21	1		08/07/14 00:59	75-71-8	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		08/07/14 00:59	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		08/07/14 00:59	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		08/07/14 00:59	75-35-4	
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		08/07/14 00:59	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		08/07/14 00:59	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		08/07/14 00:59	78-87-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Sample: MW-3R **Lab ID: 92211157001** Collected: 07/29/14 10:00 Received: 07/29/14 11:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,3-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		08/07/14 00:59	142-28-9	
2,2-Dichloropropane	**<0.13**	ug/L	1.0	0.13	1		08/07/14 00:59	594-20-7	
1,1-Dichloropropene	**<0.49**	ug/L	1.0	0.49	1		08/07/14 00:59	563-58-6	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		08/07/14 00:59	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		08/07/14 00:59	10061-02-6	
Diisopropyl ether	**<0.12**	ug/L	1.0	0.12	1		08/07/14 00:59	108-20-3	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		08/07/14 00:59	100-41-4	
Hexachloro-1,3-butadiene	**<0.71**	ug/L	1.0	0.71	1		08/07/14 00:59	87-68-3	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		08/07/14 00:59	591-78-6	
p-Isopropyltoluene	**<0.31**	ug/L	1.0	0.31	1		08/07/14 00:59	99-87-6	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		08/07/14 00:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		08/07/14 00:59	108-10-1	
Methyl-tert-butyl ether	**<0.21**	ug/L	1.0	0.21	1		08/07/14 00:59	1634-04-4	
Naphthalene	**<0.24**	ug/L	1.0	0.24	1		08/07/14 00:59	91-20-3	
Styrene	**<0.26**	ug/L	1.0	0.26	1		08/07/14 00:59	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		08/07/14 00:59	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		08/07/14 00:59	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		08/07/14 00:59	127-18-4	
Toluene	**<0.26**	ug/L	1.0	0.26	1		08/07/14 00:59	108-88-3	
1,2,3-Trichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/07/14 00:59	87-61-6	
1,2,4-Trichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/07/14 00:59	120-82-1	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		08/07/14 00:59	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/07/14 00:59	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/07/14 00:59	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		08/07/14 00:59	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		08/07/14 00:59	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		08/07/14 00:59	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		08/07/14 00:59	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		08/07/14 00:59	1330-20-7	
m&p-Xylene	**<0.66**	ug/L	2.0	0.66	1		08/07/14 00:59	179601-23-1	
o-Xylene	**<0.23**	ug/L	1.0	0.23	1		08/07/14 00:59	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		08/07/14 00:59	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		1		08/07/14 00:59	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		08/07/14 00:59	2037-26-5	

Sample: TRIP BLANK **Lab ID: 92211157002** Collected: 07/29/14 00:00 Received: 07/29/14 11:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		08/06/14 21:28	67-64-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		08/06/14 21:28	71-43-2	
Bromobenzene	**<0.30**	ug/L	1.0	0.30	1		08/06/14 21:28	108-86-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Sample: TRIP BLANK **Lab ID: 92211157002** Collected: 07/29/14 00:00 Received: 07/29/14 11:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		08/06/14 21:28	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		08/06/14 21:28	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		08/06/14 21:28	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		08/06/14 21:28	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		08/06/14 21:28	78-93-3	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		08/06/14 21:28	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		08/06/14 21:28	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		08/06/14 21:28	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		08/06/14 21:28	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		08/06/14 21:28	74-87-3	
2-Chlorotoluene	**<0.35**	ug/L	1.0	0.35	1		08/06/14 21:28	95-49-8	
4-Chlorotoluene	**<0.31**	ug/L	1.0	0.31	1		08/06/14 21:28	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.0**	ug/L	2.0	2.0	1		08/06/14 21:28	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		08/06/14 21:28	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		08/06/14 21:28	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		08/06/14 21:28	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		08/06/14 21:28	95-50-1	
1,3-Dichlorobenzene	**<0.24**	ug/L	1.0	0.24	1		08/06/14 21:28	541-73-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/06/14 21:28	106-46-7	
Dichlorodifluoromethane	**<0.21**	ug/L	1.0	0.21	1		08/06/14 21:28	75-71-8	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		08/06/14 21:28	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		08/06/14 21:28	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		08/06/14 21:28	75-35-4	
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		08/06/14 21:28	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		08/06/14 21:28	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		08/06/14 21:28	78-87-5	
1,3-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		08/06/14 21:28	142-28-9	
2,2-Dichloropropane	**<0.13**	ug/L	1.0	0.13	1		08/06/14 21:28	594-20-7	
1,1-Dichloropropene	**<0.49**	ug/L	1.0	0.49	1		08/06/14 21:28	563-58-6	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		08/06/14 21:28	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		08/06/14 21:28	10061-02-6	
Diisopropyl ether	**<0.12**	ug/L	1.0	0.12	1		08/06/14 21:28	108-20-3	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		08/06/14 21:28	100-41-4	
Hexachloro-1,3-butadiene	**<0.71**	ug/L	1.0	0.71	1		08/06/14 21:28	87-68-3	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		08/06/14 21:28	591-78-6	
p-Isopropyltoluene	**<0.31**	ug/L	1.0	0.31	1		08/06/14 21:28	99-87-6	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		08/06/14 21:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		08/06/14 21:28	108-10-1	
Methyl-tert-butyl ether	**<0.21**	ug/L	1.0	0.21	1		08/06/14 21:28	1634-04-4	
Naphthalene	**<0.24**	ug/L	1.0	0.24	1		08/06/14 21:28	91-20-3	
Styrene	**<0.26**	ug/L	1.0	0.26	1		08/06/14 21:28	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		08/06/14 21:28	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		08/06/14 21:28	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		08/06/14 21:28	127-18-4	
Toluene	**<0.26**	ug/L	1.0	0.26	1		08/06/14 21:28	108-88-3	
1,2,3-Trichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		08/06/14 21:28	87-61-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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(828)254-7176

ANALYTICAL RESULTS

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Sample: TRIP BLANK **Lab ID: 92211157002** Collected: 07/29/14 00:00 Received: 07/29/14 11:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2,4-Trichlorobenzene	**<0.35**	ug/L	1.0	0.35	1		08/06/14 21:28	120-82-1	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		08/06/14 21:28	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		08/06/14 21:28	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		08/06/14 21:28	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		08/06/14 21:28	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		08/06/14 21:28	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		08/06/14 21:28	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		08/06/14 21:28	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		08/06/14 21:28	1330-20-7	
m&p-Xylene	**<0.66**	ug/L	2.0	0.66	1		08/06/14 21:28	179601-23-1	
o-Xylene	**<0.23**	ug/L	1.0	0.23	1		08/06/14 21:28	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/06/14 21:28	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		08/06/14 21:28	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		08/06/14 21:28	2037-26-5	
8260 MSV	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		08/06/14 21:28	67-64-1	
Benzene	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	71-43-2	
Bromobenzene	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	108-86-1	
Bromochloromethane	**<2.2**	ug/L	5.0	2.2	1		08/06/14 21:28	74-97-5	
Bromodichloromethane	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	75-27-4	
Bromoform	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	75-25-2	
Bromomethane	**<2.5**	ug/L	10.0	2.5	1		08/06/14 21:28	74-83-9	
2-Butanone (MEK)	**<4.9**	ug/L	10.0	4.9	1		08/06/14 21:28	78-93-3	
tert-Butyl Alcohol	**<57.7**	ug/L	100	57.7	1		08/06/14 21:28	75-65-0	
n-Butylbenzene	**<1.9**	ug/L	5.0	1.9	1		08/06/14 21:28	104-51-8	
sec-Butylbenzene	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	135-98-8	
tert-Butylbenzene	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	98-06-6	
Carbon tetrachloride	**<1.9**	ug/L	5.0	1.9	1		08/06/14 21:28	56-23-5	
Chlorobenzene	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	108-90-7	
Chloroethane	**<1.6**	ug/L	10.0	1.6	1		08/06/14 21:28	75-00-3	
Chloroform	**<1.9**	ug/L	5.0	1.9	1		08/06/14 21:28	67-66-3	
Chloromethane	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	74-87-3	
2-Chlorotoluene	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	95-49-8	
4-Chlorotoluene	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.7**	ug/L	2.0	1.7	1		08/06/14 21:28	96-12-8	
Dibromochloromethane	**<1.8**	ug/L	5.0	1.8	1		08/06/14 21:28	124-48-1	
1,2-Dibromoethane (EDB)	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	106-93-4	
Dibromomethane	**<2.0**	ug/L	5.0	2.0	1		08/06/14 21:28	74-95-3	
1,2-Dichlorobenzene	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	95-50-1	
1,3-Dichlorobenzene	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	541-73-1	
1,4-Dichlorobenzene	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	106-46-7	
Dichlorodifluoromethane	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	75-71-8	
1,1-Dichloroethane	**<1.8**	ug/L	5.0	1.8	1		08/06/14 21:28	75-34-3	
1,2-Dichloroethane	**<1.8**	ug/L	5.0	1.8	1		08/06/14 21:28	107-06-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Sample: TRIP BLANK **Lab ID: 92211157002** Collected: 07/29/14 00:00 Received: 07/29/14 11:30 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,2-Dichloroethene (Total)	**<4.4**	ug/L	5.0	4.4	1		08/06/14 21:28	540-59-0	
1,1-Dichloroethene	**<1.9**	ug/L	5.0	1.9	1		08/06/14 21:28	75-35-4	
cis-1,2-Dichloroethene	**<1.8**	ug/L	5.0	1.8	1		08/06/14 21:28	156-59-2	
trans-1,2-Dichloroethene	**<1.8**	ug/L	5.0	1.8	1		08/06/14 21:28	156-60-5	
1,2-Dichloropropane	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	78-87-5	
1,3-Dichloropropane	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	142-28-9	
2,2-Dichloropropane	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	594-20-7	
1,1-Dichloropropene	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	563-58-6	
cis-1,3-Dichloropropene	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	10061-01-5	
trans-1,3-Dichloropropene	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	10061-02-6	
Diisopropyl ether	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	108-20-3	
Ethylbenzene	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	100-41-4	
Hexachloro-1,3-butadiene	**<1.8**	ug/L	5.0	1.8	1		08/06/14 21:28	87-68-3	
2-Hexanone	**<3.8**	ug/L	10.0	3.8	1		08/06/14 21:28	591-78-6	
Isopropylbenzene (Cumene)	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	98-82-8	
p-Isopropyltoluene	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	99-87-6	
Methylene Chloride	**<1.9**	ug/L	5.0	1.9	1		08/06/14 21:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<3.6**	ug/L	10.0	3.6	1		08/06/14 21:28	108-10-1	
Methyl-tert-butyl ether	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	1634-04-4	
Naphthalene	**<2.0**	ug/L	5.0	2.0	1		08/06/14 21:28	91-20-3	
n-Propylbenzene	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	103-65-1	
Styrene	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	79-34-5	
Tetrachloroethene	**<1.8**	ug/L	5.0	1.8	1		08/06/14 21:28	127-18-4	
Toluene	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	108-88-3	
1,2,3-Trichlorobenzene	**<2.0**	ug/L	5.0	2.0	1		08/06/14 21:28	87-61-6	
1,2,4-Trichlorobenzene	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	120-82-1	
1,1,1-Trichloroethane	**<1.9**	ug/L	5.0	1.9	1		08/06/14 21:28	71-55-6	
1,1,2-Trichloroethane	**<1.7**	ug/L	5.0	1.7	1		08/06/14 21:28	79-00-5	
Trichloroethene	**<1.8**	ug/L	5.0	1.8	1		08/06/14 21:28	79-01-6	
Trichlorofluoromethane	**<1.7**	ug/L	10.0	1.7	1		08/06/14 21:28	75-69-4	
1,2,3-Trichloropropane	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	96-18-4	
1,2,4-Trimethylbenzene	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	95-63-6	
1,3,5-Trimethylbenzene	**<1.3**	ug/L	5.0	1.3	1		08/06/14 21:28	108-67-8	
Vinyl acetate	**<2.3**	ug/L	10.0	2.3	1		08/06/14 21:28	108-05-4	
Vinyl chloride	**<1.5**	ug/L	5.0	1.5	1		08/06/14 21:28	75-01-4	
m&p-Xylene	**<3.1**	ug/L	10.0	3.1	1		08/06/14 21:28	179601-23-1	
o-Xylene	**<1.6**	ug/L	5.0	1.6	1		08/06/14 21:28	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/06/14 21:28	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		08/06/14 21:28	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		08/06/14 21:28	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

QC Batch: MPRP/16564
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 92211157001

METHOD BLANK: 1252863
Matrix: Water
Associated Lab Samples: 92211157001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<2.6	5.0	07/31/14 02:44	
Arsenic	ug/L	<2.7	10.0	07/31/14 02:44	
Barium	ug/L	<2.5	5.0	07/31/14 02:44	
Beryllium	ug/L	<0.50	1.0	07/31/14 02:44	
Cadmium	ug/L	<0.50	1.0	07/31/14 02:44	
Chromium	ug/L	<2.0	5.0	07/31/14 02:44	
Cobalt	ug/L	<2.0	5.0	07/31/14 02:44	
Copper	ug/L	<2.0	5.0	07/31/14 02:44	
Lead	ug/L	<4.0	5.0	07/31/14 02:44	
Nickel	ug/L	<2.5	5.0	07/31/14 02:44	
Selenium	ug/L	<5.0	10.0	07/31/14 02:44	
Silver	ug/L	<2.5	5.0	07/31/14 02:44	
Thallium	ug/L	<5.0	10.0	07/31/14 02:44	
Vanadium	ug/L	<2.5	5.0	07/31/14 02:44	
Zinc	ug/L	<5.0	10.0	07/31/14 02:44	

LABORATORY CONTROL SAMPLE: 1252864

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	482	96	80-120	
Arsenic	ug/L	500	477	95	80-120	
Barium	ug/L	500	491	98	80-120	
Beryllium	ug/L	500	473	95	80-120	
Cadmium	ug/L	500	464	93	80-120	
Chromium	ug/L	500	469	94	80-120	
Cobalt	ug/L	500	478	96	80-120	
Copper	ug/L	500	492	98	80-120	
Lead	ug/L	500	481	96	80-120	
Nickel	ug/L	500	475	95	80-120	
Selenium	ug/L	500	481	96	80-120	
Silver	ug/L	250	234	94	80-120	
Thallium	ug/L	500	469	94	80-120	
Vanadium	ug/L	500	484	97	80-120	
Zinc	ug/L	500	455	91	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1252865 1252866

Parameter	Units	92210503010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	459	500	500	956	943	99	97	75-125	1	20	
Arsenic	ug/L	698	500	500	1220	1190	105	99	75-125	2	20	
Barium	ug/L	ND	500	500	502	493	100	98	75-125	2	20	
Beryllium	ug/L	ND	500	500	481	466	96	93	75-125	3	20	
Cadmium	ug/L	ND	500	500	467	453	93	91	75-125	3	20	
Chromium	ug/L	ND	500	500	478	465	96	93	75-125	3	20	
Cobalt	ug/L	ND	500	500	486	474	97	95	75-125	2	20	
Copper	ug/L	ND	500	500	510	500	102	100	75-125	2	20	
Lead	ug/L	ND	500	500	479	466	96	93	75-125	3	20	
Nickel	ug/L	ND	500	500	479	467	96	93	75-125	3	20	
Selenium	ug/L	ND	500	500	527	514	105	102	75-125	2	20	
Silver	ug/L	ND	250	250	236	230	94	92	75-125	3	20	
Thallium	ug/L	ND	500	500	466	458	93	92	75-125	2	20	
Vanadium	ug/L	ND	500	500	495	484	99	97	75-125	2	20	
Zinc	ug/L	ND	500	500	456	445	91	88	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

QC Batch: MSV/28023 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92211157001, 92211157002

METHOD BLANK: 1267907 Matrix: Water
Associated Lab Samples: 92211157001, 92211157002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.33	1.0	08/06/14 21:12	
1,1,1-Trichloroethane	ug/L	<0.48	1.0	08/06/14 21:12	
1,1,2,2-Tetrachloroethane	ug/L	<0.40	1.0	08/06/14 21:12	
1,1,2-Trichloroethane	ug/L	<0.29	1.0	08/06/14 21:12	
1,1-Dichloroethane	ug/L	<0.32	1.0	08/06/14 21:12	
1,1-Dichloroethene	ug/L	<0.56	1.0	08/06/14 21:12	
1,1-Dichloropropene	ug/L	<0.49	1.0	08/06/14 21:12	
1,2,3-Trichlorobenzene	ug/L	0.44J	1.0	08/06/14 21:12	
1,2,3-Trichloropropane	ug/L	<0.41	1.0	08/06/14 21:12	
1,2,4-Trichlorobenzene	ug/L	<0.35	1.0	08/06/14 21:12	
1,2-Dibromo-3-chloropropane	ug/L	<2.0	2.0	08/06/14 21:12	
1,2-Dibromoethane (EDB)	ug/L	<0.27	1.0	08/06/14 21:12	
1,2-Dichlorobenzene	ug/L	<0.30	1.0	08/06/14 21:12	
1,2-Dichloroethane	ug/L	<0.12	1.0	08/06/14 21:12	
1,2-Dichloropropane	ug/L	<0.27	1.0	08/06/14 21:12	
1,3-Dichlorobenzene	ug/L	<0.24	1.0	08/06/14 21:12	
1,3-Dichloropropane	ug/L	<0.28	1.0	08/06/14 21:12	
1,4-Dichlorobenzene	ug/L	<0.33	1.0	08/06/14 21:12	
2,2-Dichloropropane	ug/L	<0.13	1.0	08/06/14 21:12	
2-Butanone (MEK)	ug/L	<0.96	5.0	08/06/14 21:12	
2-Chlorotoluene	ug/L	<0.35	1.0	08/06/14 21:12	
2-Hexanone	ug/L	<0.46	5.0	08/06/14 21:12	
4-Chlorotoluene	ug/L	<0.31	1.0	08/06/14 21:12	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.33	5.0	08/06/14 21:12	
Acetone	ug/L	<10.0	25.0	08/06/14 21:12	
Benzene	ug/L	<0.25	1.0	08/06/14 21:12	
Bromobenzene	ug/L	<0.30	1.0	08/06/14 21:12	
Bromochloromethane	ug/L	<0.17	1.0	08/06/14 21:12	
Bromodichloromethane	ug/L	<0.18	1.0	08/06/14 21:12	
Bromoform	ug/L	<0.26	1.0	08/06/14 21:12	
Bromomethane	ug/L	<0.29	2.0	08/06/14 21:12	
Carbon tetrachloride	ug/L	<0.25	1.0	08/06/14 21:12	
Chlorobenzene	ug/L	<0.23	1.0	08/06/14 21:12	
Chloroethane	ug/L	<0.54	1.0	08/06/14 21:12	
Chloroform	ug/L	<0.14	1.0	08/06/14 21:12	
Chloromethane	ug/L	<0.11	1.0	08/06/14 21:12	
cis-1,2-Dichloroethene	ug/L	<0.19	1.0	08/06/14 21:12	
cis-1,3-Dichloropropene	ug/L	<0.13	1.0	08/06/14 21:12	
Dibromochloromethane	ug/L	<0.21	1.0	08/06/14 21:12	
Dibromomethane	ug/L	<0.21	1.0	08/06/14 21:12	
Dichlorodifluoromethane	ug/L	<0.21	1.0	08/06/14 21:12	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

METHOD BLANK: 1267907 Matrix: Water
Associated Lab Samples: 92211157001, 92211157002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	<0.12	1.0	08/06/14 21:12	
Ethylbenzene	ug/L	<0.30	1.0	08/06/14 21:12	
Hexachloro-1,3-butadiene	ug/L	1.2	1.0	08/06/14 21:12	
m&p-Xylene	ug/L	<0.66	2.0	08/06/14 21:12	
Methyl-tert-butyl ether	ug/L	<0.21	1.0	08/06/14 21:12	
Methylene Chloride	ug/L	<0.97	1.0	08/06/14 21:12	
Naphthalene	ug/L	0.39J	1.0	08/06/14 21:12	
o-Xylene	ug/L	<0.23	1.0	08/06/14 21:12	
p-Isopropyltoluene	ug/L	<0.31	1.0	08/06/14 21:12	
Styrene	ug/L	<0.26	1.0	08/06/14 21:12	
Tetrachloroethene	ug/L	<0.46	1.0	08/06/14 21:12	
Toluene	ug/L	<0.26	1.0	08/06/14 21:12	
trans-1,2-Dichloroethene	ug/L	<0.49	1.0	08/06/14 21:12	
trans-1,3-Dichloropropene	ug/L	<0.26	1.0	08/06/14 21:12	
Trichloroethene	ug/L	<0.47	1.0	08/06/14 21:12	
Trichlorofluoromethane	ug/L	<0.20	1.0	08/06/14 21:12	
Vinyl acetate	ug/L	<0.35	2.0	08/06/14 21:12	
Vinyl chloride	ug/L	<0.62	1.0	08/06/14 21:12	
Xylene (Total)	ug/L	<0.66	2.0	08/06/14 21:12	
1,2-Dichloroethane-d4 (S)	%	96	70-130	08/06/14 21:12	
4-Bromofluorobenzene (S)	%	103	70-130	08/06/14 21:12	
Toluene-d8 (S)	%	97	70-130	08/06/14 21:12	

LABORATORY CONTROL SAMPLE: 1267908

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	52.0	104	80-125	
1,1,1-Trichloroethane	ug/L	50	45.4	91	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	51.7	103	79-124	
1,1,2-Trichloroethane	ug/L	50	50.6	101	85-125	
1,1-Dichloroethane	ug/L	50	45.0	90	73-126	
1,1-Dichloroethene	ug/L	50	50.2	100	66-135	
1,1-Dichloropropene	ug/L	50	49.5	99	74-135	
1,2,3-Trichlorobenzene	ug/L	50	60.4	121	73-135	
1,2,3-Trichloropropane	ug/L	50	52.2	104	75-130	
1,2,4-Trichlorobenzene	ug/L	50	57.9	116	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	57.9	116	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	83-124	
1,2-Dichlorobenzene	ug/L	50	52.9	106	80-133	
1,2-Dichloroethane	ug/L	50	47.5	95	67-128	
1,2-Dichloropropane	ug/L	50	51.4	103	75-132	
1,3-Dichlorobenzene	ug/L	50	51.0	102	77-130	
1,3-Dichloropropane	ug/L	50	52.8	106	76-131	
1,4-Dichlorobenzene	ug/L	50	51.4	103	78-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

LABORATORY CONTROL SAMPLE: 1267908

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	44.9	90	40-160	
2-Butanone (MEK)	ug/L	100	103	103	61-144	
2-Chlorotoluene	ug/L	50	50.6	101	74-132	
2-Hexanone	ug/L	100	108	108	68-143	
4-Chlorotoluene	ug/L	50	49.9	100	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	105	105	72-135	
Acetone	ug/L	100	92.6	93	48-146	
Benzene	ug/L	50	49.7	99	80-125	
Bromobenzene	ug/L	50	50.6	101	75-125	
Bromochloromethane	ug/L	50	48.5	97	71-125	
Bromodichloromethane	ug/L	50	54.9	110	78-124	
Bromoform	ug/L	50	48.0	96	71-128	
Bromomethane	ug/L	50	29.4	59	40-160	
Carbon tetrachloride	ug/L	50	47.2	94	69-131	
Chlorobenzene	ug/L	50	49.3	99	81-122	
Chloroethane	ug/L	50	37.4	75	39-148	
Chloroform	ug/L	50	53.8	108	73-127	
Chloromethane	ug/L	50	40.4	81	44-146	
cis-1,2-Dichloroethene	ug/L	50	51.5	103	74-124	
cis-1,3-Dichloropropene	ug/L	50	46.4	93	72-132	
Dibromochloromethane	ug/L	50	53.0	106	78-125	
Dibromomethane	ug/L	50	52.1	104	82-120	
Dichlorodifluoromethane	ug/L	50	50.5	101	34-157	
Diisopropyl ether	ug/L	50	48.7	97	69-135	
Ethylbenzene	ug/L	50	50.7	101	79-121	
Hexachloro-1,3-butadiene	ug/L	50	56.6	113	72-131	
m&p-Xylene	ug/L	100	102	102	81-124	
Methyl-tert-butyl ether	ug/L	50	48.5	97	74-131	
Methylene Chloride	ug/L	50	50.9	102	64-133	
Naphthalene	ug/L	50	62.9	126	73-133	
o-Xylene	ug/L	50	52.9	106	79-131	
p-Isopropyltoluene	ug/L	50	51.7	103	80-131	
Styrene	ug/L	50	54.8	110	84-126	
Tetrachloroethene	ug/L	50	50.7	101	78-122	
Toluene	ug/L	50	48.8	98	80-121	
trans-1,2-Dichloroethene	ug/L	50	49.8	100	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.0	90	69-141	
Trichloroethene	ug/L	50	49.2	98	78-122	
Trichlorofluoromethane	ug/L	50	45.1	90	53-137	
Vinyl acetate	ug/L	100	112	112	40-160	
Vinyl chloride	ug/L	50	43.3	87	58-137	
Xylene (Total)	ug/L	150	155	103	81-126	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

QC Batch: MSV/27840 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 92211157002

METHOD BLANK: 1257555 Matrix: Water
Associated Lab Samples: 92211157002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.7	5.0	08/06/14 21:12	
1,1,1-Trichloroethane	ug/L	<1.9	5.0	08/06/14 21:12	
1,1,2,2-Tetrachloroethane	ug/L	<1.5	5.0	08/06/14 21:12	
1,1,2-Trichloroethane	ug/L	<1.7	5.0	08/06/14 21:12	
1,1-Dichloroethane	ug/L	<1.8	5.0	08/06/14 21:12	
1,1-Dichloroethene	ug/L	<1.9	5.0	08/06/14 21:12	
1,1-Dichloropropene	ug/L	<1.7	5.0	08/06/14 21:12	
1,2,3-Trichlorobenzene	ug/L	<2.0	5.0	08/06/14 21:12	
1,2,3-Trichloropropane	ug/L	<1.5	5.0	08/06/14 21:12	
1,2,4-Trichlorobenzene	ug/L	<1.7	5.0	08/06/14 21:12	
1,2,4-Trimethylbenzene	ug/L	<1.5	5.0	08/06/14 21:12	
1,2-Dibromo-3-chloropropane	ug/L	<1.7	2.0	08/06/14 21:12	
1,2-Dibromoethane (EDB)	ug/L	<1.7	5.0	08/06/14 21:12	
1,2-Dichlorobenzene	ug/L	<1.5	5.0	08/06/14 21:12	
1,2-Dichloroethane	ug/L	<1.8	5.0	08/06/14 21:12	
1,2-Dichloroethene (Total)	ug/L	<4.4	5.0	08/06/14 21:12	
1,2-Dichloropropane	ug/L	<1.7	5.0	08/06/14 21:12	
1,3,5-Trimethylbenzene	ug/L	<1.3	5.0	08/06/14 21:12	
1,3-Dichlorobenzene	ug/L	<1.5	5.0	08/06/14 21:12	
1,3-Dichloropropane	ug/L	<1.7	5.0	08/06/14 21:12	
1,4-Dichlorobenzene	ug/L	<1.5	5.0	08/06/14 21:12	
2,2-Dichloropropane	ug/L	<1.6	5.0	08/06/14 21:12	
2-Butanone (MEK)	ug/L	<4.9	10.0	08/06/14 21:12	
2-Chlorotoluene	ug/L	<1.5	5.0	08/06/14 21:12	
2-Hexanone	ug/L	<3.8	10.0	08/06/14 21:12	
4-Chlorotoluene	ug/L	<1.6	5.0	08/06/14 21:12	
4-Methyl-2-pentanone (MIBK)	ug/L	<3.6	10.0	08/06/14 21:12	
Acetone	ug/L	<10.0	25.0	08/06/14 21:12	
Benzene	ug/L	<1.7	5.0	08/06/14 21:12	
Bromobenzene	ug/L	<1.5	5.0	08/06/14 21:12	
Bromochloromethane	ug/L	<2.2	5.0	08/06/14 21:12	
Bromodichloromethane	ug/L	<1.7	5.0	08/06/14 21:12	
Bromoform	ug/L	<1.5	5.0	08/06/14 21:12	
Bromomethane	ug/L	<2.5	10.0	08/06/14 21:12	
Carbon tetrachloride	ug/L	<1.9	5.0	08/06/14 21:12	
Chlorobenzene	ug/L	<1.7	5.0	08/06/14 21:12	
Chloroethane	ug/L	<1.6	10.0	08/06/14 21:12	
Chloroform	ug/L	<1.9	5.0	08/06/14 21:12	
Chloromethane	ug/L	<1.5	5.0	08/06/14 21:12	
cis-1,2-Dichloroethene	ug/L	<1.8	5.0	08/06/14 21:12	
cis-1,3-Dichloropropene	ug/L	<1.6	5.0	08/06/14 21:12	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

METHOD BLANK: 1257555 Matrix: Water
Associated Lab Samples: 92211157002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<1.8	5.0	08/06/14 21:12	
Dibromomethane	ug/L	<2.0	5.0	08/06/14 21:12	
Dichlorodifluoromethane	ug/L	<1.6	5.0	08/06/14 21:12	
Diisopropyl ether	ug/L	<1.7	5.0	08/06/14 21:12	
Ethylbenzene	ug/L	<1.6	5.0	08/06/14 21:12	
Hexachloro-1,3-butadiene	ug/L	<1.8	5.0	08/06/14 21:12	
Isopropylbenzene (Cumene)	ug/L	<1.6	5.0	08/06/14 21:12	
m&p-Xylene	ug/L	<3.1	10.0	08/06/14 21:12	
Methyl-tert-butyl ether	ug/L	<1.7	5.0	08/06/14 21:12	
Methylene Chloride	ug/L	<1.9	5.0	08/06/14 21:12	
n-Butylbenzene	ug/L	<1.9	5.0	08/06/14 21:12	
n-Propylbenzene	ug/L	<1.5	5.0	08/06/14 21:12	
Naphthalene	ug/L	<2.0	5.0	08/06/14 21:12	
o-Xylene	ug/L	<1.6	5.0	08/06/14 21:12	
p-Isopropyltoluene	ug/L	<1.6	5.0	08/06/14 21:12	
sec-Butylbenzene	ug/L	<1.7	5.0	08/06/14 21:12	
Styrene	ug/L	<1.6	5.0	08/06/14 21:12	
tert-Butyl Alcohol	ug/L	<57.7	100	08/06/14 21:12	
tert-Butylbenzene	ug/L	<1.6	5.0	08/06/14 21:12	
Tetrachloroethene	ug/L	<1.8	5.0	08/06/14 21:12	
Toluene	ug/L	<1.6	5.0	08/06/14 21:12	
trans-1,2-Dichloroethene	ug/L	<1.8	5.0	08/06/14 21:12	
trans-1,3-Dichloropropene	ug/L	<1.6	5.0	08/06/14 21:12	
Trichloroethene	ug/L	<1.8	5.0	08/06/14 21:12	
Trichlorofluoromethane	ug/L	<1.7	10.0	08/06/14 21:12	
Vinyl acetate	ug/L	<2.3	10.0	08/06/14 21:12	
Vinyl chloride	ug/L	<1.5	5.0	08/06/14 21:12	
1,2-Dichloroethane-d4 (S)	%	96	70-130	08/06/14 21:12	
4-Bromofluorobenzene (S)	%	103	70-130	08/06/14 21:12	
Toluene-d8 (S)	%	97	70-130	08/06/14 21:12	

LABORATORY CONTROL SAMPLE: 1257556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	52.0	104	80-125	
1,1,1-Trichloroethane	ug/L	50	45.4	91	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	51.7	103	79-124	
1,1,2-Trichloroethane	ug/L	50	50.6	101	85-125	
1,1-Dichloroethane	ug/L	50	45.0	90	73-126	
1,1-Dichloroethene	ug/L	50	50.2	100	66-135	
1,1-Dichloropropene	ug/L	50	49.5	99	74-135	
1,2,3-Trichlorobenzene	ug/L	50	60.4	121	73-135	
1,2,3-Trichloropropane	ug/L	50	52.2	104	75-130	
1,2,4-Trichlorobenzene	ug/L	50	57.9	116	75-134	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

LABORATORY CONTROL SAMPLE: 1257556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	50	53.6	107	79-125	
1,2-Dibromo-3-chloropropane	ug/L	50	57.9	116	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	83-124	
1,2-Dichlorobenzene	ug/L	50	52.9	106	80-133	
1,2-Dichloroethane	ug/L	50	47.5	95	67-128	
1,2-Dichloroethene (Total)	ug/L	100	101	101	73-128	
1,2-Dichloropropane	ug/L	50	51.4	103	75-132	
1,3,5-Trimethylbenzene	ug/L	50	51.4	103	79-123	
1,3-Dichlorobenzene	ug/L	50	51.0	102	77-130	
1,3-Dichloropropane	ug/L	50	52.8	106	76-131	
1,4-Dichlorobenzene	ug/L	50	51.4	103	78-130	
2,2-Dichloropropane	ug/L	50	44.9	90	40-160	
2-Butanone (MEK)	ug/L	100	103	103	61-144	
2-Chlorotoluene	ug/L	50	50.6	101	74-132	
2-Hexanone	ug/L	100	108	108	68-143	
4-Chlorotoluene	ug/L	50	49.9	100	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	105	105	72-135	
Acetone	ug/L	100	92.6	93	48-146	
Benzene	ug/L	50	49.7	99	80-125	
Bromobenzene	ug/L	50	50.6	101	75-125	
Bromochloromethane	ug/L	50	48.5	97	71-125	
Bromodichloromethane	ug/L	50	54.9	110	78-124	
Bromoform	ug/L	50	48.0	96	71-128	
Bromomethane	ug/L	50	29.4	59	40-160	
Carbon tetrachloride	ug/L	50	47.2	94	69-131	
Chlorobenzene	ug/L	50	49.3	99	81-122	
Chloroethane	ug/L	50	37.4	75	39-148	
Chloroform	ug/L	50	53.8	108	73-127	
Chloromethane	ug/L	50	40.4	81	44-146	
cis-1,2-Dichloroethene	ug/L	50	51.5	103	74-124	
cis-1,3-Dichloropropene	ug/L	50	46.4	93	72-132	
Dibromochloromethane	ug/L	50	53.0	106	78-125	
Dibromomethane	ug/L	50	52.1	104	82-120	
Dichlorodifluoromethane	ug/L	50	50.5	101	34-157	
Diisopropyl ether	ug/L	50	48.7	97	69-135	
Ethylbenzene	ug/L	50	50.7	101	79-121	
Hexachloro-1,3-butadiene	ug/L	50	56.6	113	72-131	
Isopropylbenzene (Cumene)	ug/L	50	53.6	107	81-132	
m&p-Xylene	ug/L	100	102	102	81-124	
Methyl-tert-butyl ether	ug/L	50	48.5	97	74-131	
Methylene Chloride	ug/L	50	50.9	102	64-133	
n-Butylbenzene	ug/L	50	54.2	108	78-127	
n-Propylbenzene	ug/L	50	50.5	101	78-130	
Naphthalene	ug/L	50	62.9	126	73-133	
o-Xylene	ug/L	50	52.9	106	79-131	
p-Isopropyltoluene	ug/L	50	51.7	103	80-131	
sec-Butylbenzene	ug/L	50	51.0	102	80-133	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

LABORATORY CONTROL SAMPLE: 1257556

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Styrene	ug/L	50	54.8	110	84-126	
tert-Butyl Alcohol	ug/L	500	514	103	36-136	
tert-Butylbenzene	ug/L	50	53.3	107	77-133	
Tetrachloroethene	ug/L	50	50.7	101	78-122	
Toluene	ug/L	50	48.8	98	80-121	
trans-1,2-Dichloroethene	ug/L	50	49.8	100	71-127	
trans-1,3-Dichloropropene	ug/L	50	45.0	90	69-141	
Trichloroethene	ug/L	50	49.2	98	78-122	
Trichlorofluoromethane	ug/L	50	45.1	90	53-137	
Vinyl acetate	ug/L	100	112	112	40-160	
Vinyl chloride	ug/L	50	43.3	87	58-137	
1,2-Dichloroethane-d4 (S)	%			95	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1258526

Parameter	Units	92211465001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	50	55.9	112	70-130	
1,1,1-Trichloroethane	ug/L	ND	50	53.3	107	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	54.1	108	70-130	
1,1,2-Trichloroethane	ug/L	ND	50	54.6	109	70-130	
1,1-Dichloroethane	ug/L	ND	50	49.9	100	70-130	
1,1-Dichloroethene	ug/L	ND	50	59.8	120	65-160	
1,1-Dichloropropene	ug/L	ND	50	60.2	120	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	50	65.6	131	70-130	M0
1,2,3-Trichloropropane	ug/L	ND	50	54.4	109	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	50	63.1	126	70-130	
1,2,4-Trimethylbenzene	ug/L	ND	50	58.9	118	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	55.8	112	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	50	55.6	111	60-139	
1,2-Dichlorobenzene	ug/L	ND	50	57.7	115	70-130	
1,2-Dichloroethane	ug/L	ND	50	51.5	103	70-130	
1,2-Dichloropropane	ug/L	ND	50	55.6	111	70-130	
1,3,5-Trimethylbenzene	ug/L	ND	50	56.8	114	70-130	
1,3-Dichlorobenzene	ug/L	ND	50	56.4	113	70-130	
1,3-Dichloropropane	ug/L	ND	50	55.3	111	70-130	
1,4-Dichlorobenzene	ug/L	ND	50	56.0	112	70-130	
2,2-Dichloropropane	ug/L	ND	50	53.3	107	70-130	
2-Butanone (MEK)	ug/L	ND	100	102	102	70-130	
2-Chlorotoluene	ug/L	ND	50	50.0	100	70-130	
2-Hexanone	ug/L	ND	100	111	111	70-130	
4-Chlorotoluene	ug/L	ND	50	54.6	109	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	106	106	70-130	
Acetone	ug/L	ND	100	88.6	86	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

MATRIX SPIKE SAMPLE: 1258526

Parameter	Units	92211465001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	50	56.2	112	58-162	
Bromobenzene	ug/L	ND	50	54.0	108	70-130	
Bromochloromethane	ug/L	ND	50	53.7	107	70-130	
Bromodichloromethane	ug/L	ND	50	59.2	118	70-130	
Bromoform	ug/L	ND	50	49.7	99	70-130	
Bromomethane	ug/L	ND	50	35.0	70	70-130	
Carbon tetrachloride	ug/L	ND	50	57.0	114	70-130	
Chlorobenzene	ug/L	ND	50	54.0	108	70-138	
Chloroethane	ug/L	ND	50	34.6	69	70-130	L0
Chloroform	ug/L	ND	50	57.8	116	70-130	
Chloromethane	ug/L	ND	50	39.8	80	70-130	
cis-1,2-Dichloroethene	ug/L	ND	50	57.8	116	70-130	
cis-1,3-Dichloropropene	ug/L	ND	50	50.0	100	70-130	
Dibromochloromethane	ug/L	ND	50	56.5	113	70-130	
Dibromomethane	ug/L	ND	50	56.5	113	70-130	
Dichlorodifluoromethane	ug/L	ND	50	64.8	130	70-130	
Diisopropyl ether	ug/L	ND	50	52.8	106	70-130	
Ethylbenzene	ug/L	ND	50	55.7	111	22-189	
Hexachloro-1,3-butadiene	ug/L	ND	50	72.0	144	70-130	M0
Isopropylbenzene (Cumene)	ug/L	ND	50	59.8	120	70-130	
m&p-Xylene	ug/L	ND	100	111	111	32-193	
Methyl-tert-butyl ether	ug/L	ND	50	51.7	103	37-169	
Methylene Chloride	ug/L	ND	50	53.1	106	70-130	
n-Butylbenzene	ug/L	ND	50	64.7	129	70-130	
n-Propylbenzene	ug/L	ND	50	56.5	113	70-130	
Naphthalene	ug/L	ND	50	64.9	130	19-212	
o-Xylene	ug/L	ND	50	57.1	114	70-135	
p-Isopropyltoluene	ug/L	ND	50	60.8	122	70-130	
sec-Butylbenzene	ug/L	ND	50	59.6	119	70-130	
Styrene	ug/L	ND	50	58.6	117	70-130	
tert-Butyl Alcohol	ug/L	ND	500	747	149	70-130	M0
tert-Butylbenzene	ug/L	ND	50	60.1	120	70-130	
Tetrachloroethene	ug/L	ND	50	59.6	119	70-130	
Toluene	ug/L	ND	50	53.9	108	65-152	
trans-1,2-Dichloroethene	ug/L	ND	50	57.9	116	70-130	
trans-1,3-Dichloropropene	ug/L	ND	50	47.9	96	70-130	
Trichloroethene	ug/L	ND	50	56.0	112	70-142	
Trichlorofluoromethane	ug/L	ND	50	53.5	107	70-130	
Vinyl acetate	ug/L	ND	100	114	114	70-130	
Vinyl chloride	ug/L	ND	50	51.9	104	70-130	
1,2-Dichloroethane-d4 (S)	%				93	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				98	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

SAMPLE DUPLICATE: 1258525

Parameter	Units	92211410002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	<1.7		30	
1,1,1-Trichloroethane	ug/L	ND	<1.9		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	<1.5		30	
1,1,2-Trichloroethane	ug/L	ND	<1.7		30	
1,1-Dichloroethane	ug/L	ND	<1.8		30	
1,1-Dichloroethene	ug/L	ND	<1.9		30	
1,1-Dichloropropene	ug/L	ND	<1.7		30	
1,2,3-Trichlorobenzene	ug/L	ND	<2.0		30	
1,2,3-Trichloropropane	ug/L	ND	<1.5		30	
1,2,4-Trichlorobenzene	ug/L	ND	<1.7		30	
1,2,4-Trimethylbenzene	ug/L	ND	<1.5		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	<1.7		30	
1,2-Dibromoethane (EDB)	ug/L	ND	<1.7		30	
1,2-Dichlorobenzene	ug/L	ND	<1.5		30	
1,2-Dichloroethane	ug/L	ND	<1.8		30	
1,2-Dichloroethene (Total)	ug/L	ND	<4.4		30	
1,2-Dichloropropane	ug/L	ND	<1.7		30	
1,3,5-Trimethylbenzene	ug/L	ND	<1.3		30	
1,3-Dichlorobenzene	ug/L	ND	<1.5		30	
1,3-Dichloropropane	ug/L	ND	<1.7		30	
1,4-Dichlorobenzene	ug/L	ND	<1.5		30	
2,2-Dichloropropane	ug/L	ND	<1.6		30	
2-Butanone (MEK)	ug/L	ND	<4.9		30	
2-Chlorotoluene	ug/L	ND	<1.5		30	
2-Hexanone	ug/L	ND	<3.8		30	
4-Chlorotoluene	ug/L	ND	<1.6		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	<3.6		30	
Acetone	ug/L	ND	<10.0		30	
Benzene	ug/L	ND	<1.7		30	
Bromobenzene	ug/L	ND	<1.5		30	
Bromochloromethane	ug/L	ND	<2.2		30	
Bromodichloromethane	ug/L	ND	<1.7		30	
Bromoform	ug/L	ND	<1.5		30	
Bromomethane	ug/L	ND	<2.5		30	
Carbon tetrachloride	ug/L	ND	<1.9		30	
Chlorobenzene	ug/L	ND	<1.7		30	
Chloroethane	ug/L	ND	<1.6		30	
Chloroform	ug/L	ND	<1.9		30	
Chloromethane	ug/L	ND	<1.5		30	
cis-1,2-Dichloroethene	ug/L	ND	<1.8		30	
cis-1,3-Dichloropropene	ug/L	ND	<1.6		30	
Dibromochloromethane	ug/L	ND	<1.8		30	
Dibromomethane	ug/L	ND	<2.0		30	
Dichlorodifluoromethane	ug/L	ND	<1.6		30	
Diisopropyl ether	ug/L	ND	<1.7		30	
Ethylbenzene	ug/L	ND	<1.6		30	
Hexachloro-1,3-butadiene	ug/L	ND	<1.8		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

SAMPLE DUPLICATE: 1258525

Parameter	Units	92211410002 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/L	ND	<1.6		30	
m&p-Xylene	ug/L	ND	<3.1		30	
Methyl-tert-butyl ether	ug/L	ND	<1.7		30	
Methylene Chloride	ug/L	ND	<1.9		30	
n-Butylbenzene	ug/L	ND	<1.9		30	
n-Propylbenzene	ug/L	ND	<1.5		30	
Naphthalene	ug/L	ND	<2.0		30	
o-Xylene	ug/L	ND	<1.6		30	
p-Isopropyltoluene	ug/L	ND	<1.6		30	
sec-Butylbenzene	ug/L	ND	<1.7		30	
Styrene	ug/L	ND	<1.6		30	
tert-Butyl Alcohol	ug/L	ND	<57.7		30	
tert-Butylbenzene	ug/L	ND	<1.6		30	
Tetrachloroethene	ug/L	ND	<1.8		30	
Toluene	ug/L	ND	<1.6		30	
trans-1,2-Dichloroethene	ug/L	ND	<1.8		30	
trans-1,3-Dichloropropene	ug/L	ND	<1.6		30	
Trichloroethene	ug/L	ND	<1.8		30	
Trichlorofluoromethane	ug/L	ND	<1.7		30	
Vinyl acetate	ug/L	ND	<2.3		30	
Vinyl chloride	ug/L	ND	<1.5		30	
1,2-Dichloroethane-d4 (S)	%	94	98	5		
4-Bromofluorobenzene (S)	%	102	100	2		
Toluene-d8 (S)	%	97	97	0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALIFIERS

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Buncombe Co. MW-3R 7/29
Pace Project No.: 92211157

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92211157001	**MW-3R**	EPA 3010	MPRP/16564	EPA 6010	ICP/14958
92211157001	**MW-3R**	EPA 8260	MSV/28023		
92211157002	**TRIP BLANK**	EPA 8260	MSV/28023		
92211157002	**TRIP BLANK**	EPA 8260	MSV/27840		

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1843764

Section A
Required Client Information:

Company: COM Smith
Address: 5460 Glenwood Ave Suite 300 Raleigh, NC 27612
Email To: colonemf@comsmith.com
Phone: 919 325-3529 Fax: 919 325-3529
Requested Due Date/TAT: STANDARD

Section B
Required Project Information:

Report To: Mathew Colone
Copy To:
Purchase Order No.:
Project Name: Buncombe County MW-3R
Project Number:

Section C
Invoice Information:

Attention: Mathew Colone
Company Name: COM Smith
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER NC SWS

Site Location STATE: NC

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: NC APP I VOC	NC APP I Metals	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-3R	WT	G			7/29/14	1000	14	4			✓	✓					✓	✓		92211157 001
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Provide NC SWS EDD in addition to data	Mathew Colone/COMSmith	7/29/14	1130		7/29/14	1130	11.0	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mathew Colone
SIGNATURE of SAMPLER: Mathew Colone
DATE Signed (MM/DD/YY): 07/29/14

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: June 10, 2014 Page 1 of 2
	Document No.: F-ASV-CS-003-rev.14	Issuing Authorities: Pace Asheville Quality Office

Client Name: CDM Smith

Courier (Circle): Fed Ex UPS USPS Client Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun#3 -130265963 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

IR ~~Gun #4 SN:140290365~~ Other:_____

Temp Correction Factor: Add / Subtract 0.1 C

Corrected Cooler Temp.: 11.0 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 7/29/14

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☑Yes ☐No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted:_____ Date/Time:_____

Comments/ Resolution:_____

SCURF Review: [signature] **Date:** 8/1/14

SRF Review: [signature] **Date:** 8/1/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)